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BULLETIN 770

APRIL 1977

1976 INSPECTIONS OF

FERTILIZER
PESTICIDE
AND FEED
PRODUCTS

GOVETNMENT PUBLICATIONS
WELD

MAY 18 1977

UNIVERSITY OF CONNECTICUT

J. Gordon Hanna

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1976 Inspections of

Fertilizer, Pesticide and Feed Products

Data obtained by chemical analysis of officially collected samples of commercial feeds, fertilizers and pesticide formulations are contained in this report. The tables show the number of samples from each manufacturer (in parenthesis), the number of determinations made for each guaranteed ingredient, the number of deficiencies, and the average percent of claims for each component.

The deficiencies noted for feed samples are based on the permitted variations recommended by the Association of American Feed Control Officials, the investigational allowances for fertilizers are those of the Association of American Plant Food Control Officials, and the permissive guarantee variations suggested by the Association of American Pesticide Control Officials are used for pesticide formulations.

Data for 588 samples of feed representing 52 manufacturers, 416 samples of fertilizer representing 54 manufacturers and 285 samples of pesticide representing 53 manufacturers are summarized.

The feed and fertilizer laws are administered by the Commissioner of Agriculture. The pesticide law is under the direction of the Commissioner of Environmental Protection.

Analytical work was by R. Botsford, M. Fuzesi, W. Glowa, H. Kocaba, R. Smith, S. Squires and G. Wilmes. The report was assembled and typed by C. Peet.

J. Gordon Hanna, Chief Chemist

April, 1976

	Num	ber o	of Claim	ıs	Number	Not M	<u>let</u>	Average	% of	Claims
Feed Manufacturer	Protein	Fat	Fiber	Total	Protein	Fat	Fiber	Protein	Fat	Fiber
Agway (76) Allen Products (3) Allied Mills (42) Armour Dial (1)	76 3 42 1	76 3 42 1	76 3 42 1	228 9 126 3	0 1 1 0	0 1 0 0	0 0 0	106 101 116 120	125 102 142 207	68 33 62 93
Beacon Milling (8) Best Feed Farm Supplies (3) Blue Seal Mill (4) Bordo Citrus Products (2) Bumble Bee Seafoods (1)	8 3 4 2 1	8 3 4 2 1	8 3 4 2 1	24 9 12 6 3	0 0 0 0	0 0 0 0	0 0 0 0	114 103 103 114 103	127 127 138 233 247	60 63 77 77 44
Cadillac Pet Foods (4) Calo Pet Foods (2) Carnation (7) Central Connecticut Co-op (26) Champion Valley Farms (2)	4 2 7 26 2	4 2 7 26 2	14 2 7 26 2	12 6 21 78 6	0 0 0 2 0	0 0 0 0	0 0 0 0	105 103 106 104 127	156 119 177 120 145	70 43 53 73 42
Derby Feed Co. (1)	ı	1	1	3	0	0	0	100	130	36
John W. Eschelman (41)	40	40	40	120	ı	0	0	108	145	67
Farm Bureau (16) R. T. French (2)	16 2	16 2	16 2	48 6	1 0	1 0	0 0	101 130	124 152	76 22
General Foods (4) Roy Goff (5) Great A & P (25)	4 5 25	4 5 25	4 5 25	12 15 75	0 1 0	0 0 0	.0 .0	115 98 123	170 134 173	65 38 64
Hap-EE Pet Food (1) Hartz Mountain (12) E. C. & W. L. Hopkins (26)	1 12 26	1 12 26	1 12 26	3 36 78	1 0 0	0 1 0	0 0 0	92 111 104	112 137 134	10 59 73
Jerky Treats (2)	2	2	2	6	0	0	0	103	297	12
K & L Feed Mill (3) Kal Kan Foods (3) Keystone Dehydrators (1)	3 3 1	3 3 1	3 3 1	9 9 3	0 0 0	0 0 0	0 0 0	116 112 100	116 150 114	69 21 104
Lipton Pet Foods (3) Liv-A-Snaps (3)	3 3	3	3 3	9 9	0 0	0	0 0	122 111	109 129	81 29
Mavar Shrimp and Oyster (1) Miller Morton (6) Morton Pet Food (1)	1 6 1	1 6 1	1 6 1	.3 18 3	0 0 -	0 0 -	0 0 -	114 104 -	158 130 -	68 49 -
Nabisco (6) National Alfalfa (1) National Pet Food (2) New England Fish (1)	6 1 2 1	6 1 2 1	6 1 2 1	18 3 6 3	2 0 1 0	0 0 0	0 0 0 0	104 103 90 120	140 203 116 130	53 98 46 46
Old Mother Hubbard (1)	1	1	1	3	0	0	0	106	237	32
Perk Foods (1)	1	1	1	3	0	0	0	104	241	65
Quaker Oats (12)	12	12	12	36	0	1	0	112	135	54

Feed	Num	ber o	f Claim	ıs	Number	Not M	let	Average	% of	Claims
Manufacturer	Protein	Fat	Fiber	Total	Protein	Fat	Fiber	Protein	Fat	Fiber
Ralston Purina (76) Reward Co. (3) Riviana Foods (2)	76 3 2	76 3 2	76 3 2	228 9 6	0 0	0 0	0 0	110 102 112	153 227 145	58 20 45
Star-Kist Foods (2) Stop & Shop (11) Strongheart Products (1) Sunshine Feed Mills (1) Superior Pet Products (1)	2 11 1 1	2 11 1 1	2 11 1 1	6 33 3 3 3	0 0 0 0	0 0 0 0	0 0 0 0	105 110 124 100 110	166 165 138 106 440	41 52 123 55 105
Triumph Pet Industries (7)	7	7	7	21	0	0	0	106	123	57
United Co-op Farmers (17)	15	15	15	45	0	0	0	106	113	68
Valley Pet Food (1)	1	1	1	3	0	0	0	119	160	46
H. K. Webster (105)	105	104	104	313	2	0	0	105	125	76
(588)	585	584	584	1753	13	4	0	108	139	65

Percent of claims deficient: 0.97

	Numb	er of C	laims	Number	r Not Met	Average %	of Claims
Fertilizer Manufacturer	N	P205+ K20	Total	N	P ₂ 05+ K ₂ 0	N	P205+ K20
Agrico Chemical Co. (21) Agway, Inc. (72) Atlas Fish Fertilizer (2) A.V.I. (2)	17 63 2 2	37 126 3 3	54 189 5 5	5 2 0 0	16 10 0	112.1 104.4 111.8 125.5	95.2 107.1 125.9 124.3
Brockville Chemical (1)	1	0	1	0	-	100.5	-
Cadwell and Jones (18) Carefree Garden Products (2) Chevron (18) Chilean Nitrate Sales (1) Continental Peat (4) Corenco (13)	15 2 17 1 4 13	33 4 33 1 8 24	48 6 50 2 12 37	2 0 0 0 1 1	11 0 0 0 1 3	107.6 98.9 107.4 98.1 110.4 103.6	98.0 107.7 109.0 99.7 135.6 115.0
Ross Daniels (6) The Dramm Co. (1) Dunhill Organic (1) DuPont (1) Dysart Chemical Co. (1)	6 1 1 1	12 2 2 0 2	18 3 3 1 3	0 0 0 0	0 0 0 -	142.1 102.7 121.0 98.4 102.4	105.3 127.2 183.3 - 96.1
Ecology (1) Encap (1)	1	0 2	1 3	1 0	- 0	1.8 110.8	187.2
Faesy & Besthoff (4) Federal (2) Fer-Mel (14)	4 2 14	4 4 26	8 6 40	0 0 2	0 0 0	102.3 104.4 99.1	132.9 105.2 105.0
W. R. Grace (1)	1	0	1	0	-	101.1	-
Charles C. Hart Seed (6) Hercules (2) Hyponex (4) Hytrous (4)	6 1 4 4	12 0 8 8	18 1 12 12	0 0 0	2 - 0 0	118.5 101.0 108.7 124.7	104.1 - 120.5 120.0
International Spike (1)	1	2	3	0	0	112.5	111.8
Kerr-McGee (76)	64	139	203	16	32	101.9	112.1
Lebanon (17) Loft's (3) Luzerne (8)	17 3 8	34 6 16	51 9 24	1 0 1 ₄	2 1 1	109.3 131.8 95.5	107.3 125.9 104.9
3M (3) Wilson and George Meyer (1) Mississippi Chemical (1)	3 1 1	6 0 0	9 1 1	0 0 0	0 - -	104.6 98.6 100.9	101.7
New Plant Life (1)	1	2	3	0	0	107.6	110.2
Old Fox (61) Organic Compost (4) Organic Recycling (1)	56 3 1	114 6 1	170 9 2	24 0 0	36 0 0	99.3 98.0 100.0	108.1 131.3 104.8
Pennsylvania Dutch (1) Robert B. Peters (5)	1 5	2 10	3 15	0 0	0 0	131.1 107.6	106.5 109.5
Rain Bird (1) Rapid Gro (1) Royster (2)	1 1 2	2 2 4	3 3 6	0 0 0	0 0 0	101.4 104.4 104.6	100.0 100.6 117.8

Fertilizer Manufacturer	<u>Numb</u> N	P2054 K20		<u>Numbe</u> N	P205+ K20	Average %	of Claims P205+ K20
Schultz Co. (2)	2	4	6	0	1	109.7	98.1
0. M. Scott (6) Sears (3)	3	12 6	18 9	0	1	100.9 111.0	122.8 118.2
Stern's (4)	4	8	12	0	0	102.4	105.0
Stim-U-Plant (1)	1	2	3	0	0	100.4	172.8
Unified Div. Diamond Salt (1)	1 2	2	3 6	0	0	118.0	107.9
Universal Chemical (2)		4	6	0	1	94.0	106.4
USS Agri Chemicals (2)	2	2	14	1	0	95.4	134.0
Venturi (2)	2	4	6	0	0	156.0	115.5
Vigoro (1)	1	2	3	0	0	103.1	113.6
Wegro Div., Old Fort (2)	2	4	6	0	0	104.4	104.3
(416)	380	750	1130	64	119	105.0	107.9

Percent of claims deficient: 16.2

Mixed Fertilizer Distribution

July 1, 1975 - June 30, 1976

Grade	Tons
0-10-30 0-10-40 0-15-30 0-20-20 0-25-25	39 141 395 21 35
5-10-5 5-10-10 5-20-20 6-3-6 7-7-7	845 3,862 78 1,107 46
8-8-8 8-10-10	16 3,014
8-16-16	53
10-6-4	2,505
10-10-10	7,237
10-15-15	40
10-20-10	548
10-20-20	617
12-4-8 15-8-12	108 1,177
15-10-10	2,714
15-15-15	440
15-30-15 16-8-8	47 13
20-0-10	182
20-4-8	127
20 - 5 - 10 20 - 10 - 5	276 626
20-10-10	427
20-20-20	21
23-7-7 25-5-10	957 150
Miscellaneous*	11,713
Total	39,677

^{*}Small amounts or reported by fewer than three manufacturers

Secondary and Minor Elements

Manufacturer	Element Claimed	Number Of Claims	Number Not Met	Average % Of Claims
Agrico (1)	Magnesium	1	0	254
Agway (5)	Boron Iron	3 2	0	177 1250
Carefree Garden Products (2)	Magnesium	2	0	102
Chevron (1)	Iron	1	1	81
Ross Daniels (2)	Iron	2	0	105
Ecology (1)	Boron Chlorine	1 1	1	9
	Copper Iron	1	0	6 10
	Magnesium Manganese	1	0	10 66
v v v v v v v v v v v v v v v v v v v	Zinc	1	1	7
Kerr-McGee (2)	Magnesium	2	1	81
Lebanon (4)	Calcium Iron	4 4	0	203 264
	Magnesium Sulfur	2 4	0	225 93
Loft's (2)	Boron Copper	2	0	450 89
	Iron Magnesium	2 2	0	103 2069
	Magnesium Sulfur Zinc	2 2	1 0	81 153
Old Fox (7)	Magnesium	7	0	351
	(27)	53	9	285

Percent of claims deficient: 17.0

Tonnages of Fertilizer Materials and Mixed Fertilizers Purchased During the Period of July 1, 1975 - June 30, 1976

Chem	ical	Nitrogen	

320
5
86
107
475
3,848
106
4.947

Organics

Castor pomace	109
Cottonseed meal	389
Dried blood	2
Dried manures	5,820
Fish scrap and meal	99
Sewage	1,407
Other natural organic materials	47
	7.873

Phosphates

Ammonium phosphate	1,537
Diammonium phosphate	123
Bonemeal	29
Phosphate rock	5
Superphosphate 20%	104
Superphosphate 46%	651.
	2,449

Potash

Muriate of potash	2,481
Sulfate of potash	18
Sulfate of potash-magnesia	10
Other potash materials	1
	2,513

Secondary and micronutrients

Aluminum	2
Borax	23
Copper	2
Iron	3
Zinc	3
Element mixtures	2
	35

Mixed Fertilizers

Commercial mixtures	39,677
Special mixtures	7,386
	h7 063

Total 64,780

Pesticide Manufacturer	Pesticide	Number Of Claims	Number Not Met	Average %
A The (10)	Ammonium sulfamate	,	_	
Agway, Inc. (10)		1	0	100
	Captan	3	0	101
	Carbaryl	2	0	100
	Folpet	1	0	102
	Malathion	4	0	101
	Methoxychlor	3	0	103
	Prometone	1	0	101
	Pyrethrins	1	0	100
	Resmethrin	1	0	92
	Rotenone	1	0	105
Amchem Products, Inc. (4)	Amitrol	2	0	105
1200000 12000000, 2000 (17)	2,4-D + 2,4,5-T	1	i	87
	2,4-D + Dicamba	ī	ō	96
Athena Corp. (1)	Baygon	1	0	126
	Daygon	-	Ŭ	120
Black Leaf Products Co. (16)	Arsenic	1	0	100
	Captan	1	0	101
	Carbaryl	3	0	101
	Chlordane	1	0	102
	Diazinon	1	0	104
	Folpet	1	0	100
	Kelthane	1	0	105
	Lindane	1	0	99
	Malathion	3	0	102
	Maneb	1	0	98
	Manganese	1	0	105
	Methoxychlor	1	0	102
	Nicotine	2	0	98
	Rotenone	1	0	107
	Silvex	ĩ	Ō	160
	Silvex + 2,4-D	ī	Ō	109
	Warfarin	1	0	112
Bonide Chemical Co. (39)	Ammonium sulfamate	1	0	99
Donitae onemical oo. (55)	Arsenic	i	Ö	110
	Aspon	i	Ö	99
	Benomyl	1	Ö	99
	Captan	5	0	101
	Carbaryl	12	0	103
		12	0	90
	Copper		0	104
	Chlordane	2		87
	2,14-D	2	1	
	DDVP	1	0	98
	Diazinon	2	0	103
	DiSyston	1	0	105
	Folpet	1	1	79
	Karathane	2	0	108
	Kelthane	6	0	103
	Lethane	2	2	50
	Lindane	1	0	100
	Malathion	8	0	104
	Maneb	1	0	108
	Methoxychlor	3	0	100
	Pentachlorophenol	1	0	104
	Rotenone	2	0	97
	Ryania Speciosa	2	0	101
	Sulfur	1	0	101
		_		

Pesticide Manufacturer	Pesticide	Number Of Claims	Number Not Met	Average % Of Claims
Boyle-Midway, Inc. (4)	Allethrin	1	0	97
Doyale individual and a company	Arsenic	1	Ö	100
	Baygon	î	ő	104
	Metaldehyde	ī	Ö	97
Carter-Wallace, Inc. (1)	Baygon	1	0	100
Chemagro-Baychem Co. (1)	Co-Ral	1	0	100
Chevron Chemical Co. (35)	Ammonium sulfamate	1	0	99
	Arsenic	1	0	105
	Baygon	2	0	106
	Captan	3	0	138
	Carbaryl	14	0	104
	Chlordane	3	0	109
	2,4-D	2	0	104
	Dalapon	1	0	101
	Diazinon	2	0	102
	Dyrene	1	0	102
	Folpet	2	Ö	100
	Isobornylthiocyanoacetate	1	Ö	108
		2	0	
	Kelthane			101
	Lindane	1	0	99
	Malathion	3	0	103
	Mesurol	1	0	106
	Metaldehyde	1	0	92
	Meta-Systox-R	1	0	100
	Methoxychlor	3	0	96
	Paradichlorobenzene	1	0	100
	Paraguat	ī	0	109
	Prometone	1	Ö	106
	Pyrethrins	3	ő	102
	Resmethrin	14	Ö	132
		2	0	105
	Rotenone			
	Silvex + 2,4-D	2	0	104
Ciba-Geigy Corp. (3)	Diazinon	3	0	108
Creative Chemical (1)	Hydrogen chloride	1	0	99
Jim Dandy Co. (1)	N,N-Diethyl-M-toluamide	1	0	110
The d-Con Co. (2)	Pyrethrins	1	0	107
The 4-30h 00. (2)	Resmethrin	1	ŏ	96
DeMert and Dougherty, Inc. (1)	Diazinon	1	0	110
	Pyrethrins	1	0	92
7		_		3.00
Diamond Shamrock Corp. (1)	Dylox Meta-Systox	1 1	0 0	103 100
Faesy and Besthoff, Inc. (2)	Chlordane	1	0	97
	Nicotine	1	0	152
Tormingdolo Cordon Ishanatanias (7)	Conhowel	2	0	100
Farmingdale Garden Laboratories (7)	Carbaryl	3		
	Diazinon	1	0	104
	Kelthane	2	0	103
	Lindane	1	0	100
	Malathion	2	0	103
	Maneb	1	0	102
	Methoxychlor	1	0	103
	Sulfur	1	0	103

Pesticide Manufacturer	Pesticide	Number Of Claims	Number Not Met	Average % Of Claims
Farnum Companies (9)	N,N-Diethyl-m-toluamide	2	0	105
Terriam composition ()/	Dipterex	ī	Ö	105
	Pyrethrins	5	1	91
	Rotenone	1	0	102
First National Stores (1)	Allethrin	1	0	100
	Methoxychlor	1	0	95
The Great Atlantic				
& Pacific Tea Co. (2)	Baygon	1	0	100
	Pyrethrins	2	1	84
The Hartz Mountain Corp. (3)	Carbaryl	1	0	102
	Pyrethrins	2	0	110
Heritage House Products (1)	Pyrethrins	1	0	95
Hopkins Agricultural Chemical Co. (1)	Mesurol	1	0	118
S. C. Johnson and Son, Inc. (8)	Allethrin	1	0	105
2	Carbaryl	1	0	100
	DDVP	2	0	100
	N, N-Diethyl-m-toluamide	2	0	103
	Folpet Perthane	1 1	0	97 105
	Pyrethrins	2	Ö	104
S. S. Kresge Co. (2)	Carbaryl	1	0	106
b. b. Mesge co. (2)	Maneb	1	Ö	103
	Silvex	ī	0	96
Lethelin Products Co. (1)	Lindane	1	0	99
Miller-Morton Co. (6)	Baygon	2	0	106
	Carbaryl	1	0	104
	Methoxychlor	1	0	98 114
	Pyrethrins Rotenone	1 1	0	Present
		Τ.	-	
John Opitz, Inc. (1)	Kepone	1	0	104
The Parrott Chemical Co. (5)	Captan	1	0	99
	Carbaryl	2	0	103
	Chlordane	1	0	102
	Copper Rotenone	2 2	0	114 103
Pennwalt Corp. (1)	Endothal	1	0	105
		2	0	120
Plantabbs Corp. (1)	Malathion Pyrethrins	1	0 0	130 115
Plant Marvel Laboratories (2)	Pyrethrins	2	0	97
B. G. Pratt Div., Gabriel				
Chemical Ltd. (36)	Amitrol	2	0	102
	Arsenic	2	0	101
	Baygon	1	0	100
	Benomyl	1	0 1	100 75
	Captan Carbaryl	3	0	101
	Chlordane	3	Ö	100
	Copper	2	0	100

Pesticide Manufacturer	Pesticide	Number Of Claims	Number Not Met	Average % Of Claims
B. G. Pratt Div., Gabriel				
Chemical Ltd. (36)	2,4-D	1	0	93
	Diazinon	2	0	103
	Dimethoate	1	0	101
	DiSyston	1	0	96
	Kelthane	3	0	106
	Lindane	1	0	96
	Malathion	3	1	95
	Methoxychlor	5	0	101
	Methylnonyl ketone	1	0	101
	Mexacarbate	1	0	104
	Pyrethrins	5	1	92
	Resmethrin	ĺ	0	124
	Rotenone	4	0	101
	Simazine	1	0	100
	Sulfur	2	0	102
	Thiram	1	Ö	100
	THE CAN	-	Ŭ	100
Ralston Purina Co. (17)	Baygon	1	0	132
	Captan	1	0	101
	Carbaryl	3	0	104
	Chlordane	2	0	100
	Ciodrin	1	0	101
	2,4-D + 2,4,5-T	1	0	104
	DDVP	1	0	104
	Diazinon	ī	Ō	101
	Dimethoate	ī	0	100
	Dipterex	î	Ö	104
	Karathane	î	Ö	160
	Malathion	2	ĺ	86
	Perthane	1	0	99
	Pyrethrins	2	Ö	106
	Sulfur	1	0	100
	Warfarin	1	0	104
		_		
Realex Corp. (1)	2,4-D + dicamba	1	0	100
Rexall Drug Co. (2)	Pyrethrins	1	0	108
	Resmethrin	1	0	144
Rite-Off Corp. (4)	Carbaryl	1	0	101
nite off outpe (1)	Diazinon	1	Ö	100
	Pyrethrins	3	Ö	105
	Tetramethrin	1	Ö	102
Rockland Chemical Co. (9)	Ammonium sulfamate	1	0	102
	Baygon	1	0	106
	Chlordane	2	0	100
	Ferbam	1	0	100
	Folpet	į	0	99
	Pyrethrins	4	0	97
	Tetramethrin	1	0	116
Rohm and Haas Corp. (1)	Maneb	1	0	99
Science Products Co. (4)	Kelthane	2	0	107
, ,	Maneb	1	0	99
				//

Pesticide		Number	Number	Average %
Manufacturer	Pesticide	Of Claims	Not Met	Of Claims
	A	,	•	077
O. M. Scott & Sons, Inc. (2)	Arsenic Diazinon	1	0	97 102
	2133111011	-	ŭ	102
Seacoast Laboratories, Inc. (12)	Captan	1	0	100
	Carbaryl	5	0	100
	Chlordane Diazinon	1	0	102 104
	Folpet	i	Ö	98
	Kelthane	2	Ō	99
	Malathion	4	0	100
	Methoxychlor	2	0	101
	Rotenone Zineb	1	0	100
	Zineb	1	0	109
Sears, Roebuck & Co. (9)	Arsenic	1	0	100
	Benomyl	1	0	106
	2,4-D + dicamba +			
	Methylchloropropoxy propionic acid	1	0	113
	Diazinon	i	0	107
	Dicamba + Methylchloroproxy	_	Ť	20,
	prompionic acid	1	0	104
	Dylox	2	0	102
	Methylnonyl ketone	1	0	100
	Zineb-maneb	1	0	102
Shell Chemical Co. (4)	Allethrin	2	0	102
	Chloropyrifos	1	0	96
	DDVP	1	0	102
	Methoxychlor	1	0	100
	Pyrethrins	1	0	103
Sherwin Williams Co. (1)	Captan	1	0	97
	Karathane	1	0	100
	Malathion	1	0	108
	Methoxychlor	1	0	98
Starbar (1)	DDVP	1	0	98
Sudbury Laboratory, Inc. (1)	Thiram	1	0	97
Tuco Div. of Upjohn Co. (1)	Thiram	1	0	103
Union Carbide Corp. (3)	N,N-diethyl-m-toluamide	3	0	98
Virginia Chemical, Inc. (1)	Diazinon	1	0	99
,	Pyrethrins	ī	Ö	98
F. W. Woolworth Co. (1)	Methoxychlor	1	0	9 8
Zodiac Pet Products (2)	Carbaryl	1	0	100
action from the state of the st	Ronnel	1	Ö	106

Percent of claims deficient: 2.8



AN EQUAL OPPORTUNITY EMPLOYER

PUBLICATION

PENALTY FOR PRIVATE USE, \$300

NEW HAVEN, CONNECTICUT 06504 AGRICULTURAL EXPERIMENT STATION THE CONNECTICUT

VCE 101 POSTAGE AND FEES PAID US DEPARTMENT OF AGRICULTURE





